

**REMARKS**

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application is anticipated under the provisions of 35 USC § 102 or obvious under the provisions of 35 USC § 103. Furthermore, the Applicant also submits that all of these claims now satisfy the requirements of 35 USC § 112. Thus, the Applicant believes that all of these claims are now in allowable form.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, the Examiner should telephone Mr. Peter L. Michaelson, Esq. at (732) 530-6671 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

**Drawings**

The Examiner has objected to the drawings, as filed, owing to their apparent omission of various reference numbers mentioned in the specification.

As to reference number "100" and numbers "270a-270d", the Applicant has now deleted these numbers from the specification.

With regards to the reference numbers/indicia "DFE 410", "415", "420" and "425a", which are missing from FIG. 6, the Applicant proposes to insert these numbers into this figure.

In addition, the Applicant also proposes to correct reference numbers "110b", "110c" and "110d" to point to the correct blocks in Figure 1 and to correct the spelling of the term "INVALIDIO" to "INVALID" which appears in block 840 in Figure 10. The Applicant also proposes to change the dots on the ordinate axis in each of Figures 8 and 9 to minus signs.

To facilitate all these corrections, the Applicant has enclosed appropriately red-lined drawing sheets showing all his proposed changes in red. In the event the Examiner approves all these changes and to expedite prosecution, as well as pursuant to the Examiner's request, the Applicant also encloses appropriately corrected substitute drawing sheets for Figures 1, 6 and 8-10 herewith.

Specification and abstract amendments

The Examiner objected to the specification due to various informalities.

First, as to the omission of blocks 100 and 270a-d from the drawings, the Applicant has amended his specification to delete the corresponding reference numerals.

Second, the drawings have been now amended to include reference numerals/indicia "DFF 410", "415", "420" and "425a", all of which are recited in the specification.

Third, the Examiner suggested that the Applicant delete a sentence, specifically "(Alternatively, a divider may be employed in lieu of the subtractor to produce a ratio instead of a difference.)", which appeared on page 15, lines 31-32. The Applicant appreciates the Examiner's suggestion, and, after due consideration, agrees with it. Accordingly, this sentence has now been deleted.

Lastly, the Examiner suggested that the recitation appearing in page 19, line 27 of " 270" " should be changed to " 270' ". The Applicant has now made this change.

Furthermore, various other amendments have been made to the specification and abstract to correct minor inadvertent formal errors.

In addition, the Examiner has noted that the Applicant has apparently circularly defined the term "resolution", and indicated that the specification does not provide "a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention". In that regard, the Examiner points to page 4, lines 1-2 of the specification which stated, in pertinent part, "the resolution is a resolution between leading and trailing edges of the received signal" and on the same page, in lines 5-6, which stated, in pertinent part, "the resolution is a resolution between allowed amplitude levels of the received signal". To eliminate this circularity, the Applicant, in view of the support in the specification in page 13, line 25-27, has amended the former phrase to recite "the *metric signal reflects a time difference between*

leading and trailing edges of the received signal" and, in view of the support in the specification at page 17, line 31 through page 18, line 33, has amended the latter phrase to recite "*the metric signal reflects amplitude differences* between the received signal and allowed amplitude levels of the received signal" [emphasis added].

#### Status of claims

Independent claim 1 has been amended to include the recitations of previously pending dependent claim 3. Similarly, independent claims 5, 8, 11, 14, and 20 have been amended to include the recitations of previously pending dependent claims 7, 10, 13, 16 and 22, respectively (all of these dependent claims are substantively similar to claim 3).

Dependent claims 2, 3, 6, 7, 9, 10, 12, 13, 15-17, 21, 22 and 24 have all been cancelled.

Dependent claims 27-30 are new, with each being substantively similar to dependent claim 19.

#### Objections

The Examiner has objected to claims 1-4 due to an informality, specifically in claim 1, line 3 which recites "near of the channel", that is apparently indefinite. The Examiner suggested that this recitation be changed to recite "near end of the channel".

Claim 1, as it now stands amended, includes the correct recitation as suggested by the Examiner.

Rejections

A. Rejection under 35 USC § 112

The Examiner has rejected claims 1-26 as being indefinite owing to the inclusion of the term "resolution" which the Applicant has apparently defined in a circular fashion in the specification.

In response and as discussed above, the Applicant has now amended page 4 of his specification to provide appropriate clarification and has omitted all reference to the term "resolution" from his pending claims.

Hence, this rejection should now be withdrawn.

B. Rejection under 35 USC § 102

The Examiner has rejected claims 1, 4-5, 8, 11, 14, 17, 20, 23 and 26, as they stood prior to this amendment, under the provisions of 35 USC § 102(b) as being anticipated by the teachings in the Itri patent (United States patent 5,864,592 issued to B. A. Itri on January 26, 1999).

The Examiner has also rejected claims 1, 5 and 8, as they stood prior to this amendment, as being anticipated under the provisions of 35 USC § 102(e) by the teachings in

Appl. No. 09/942,820  
Amdt. dated April 15, 2005  
Reply to Office Action of Jan. 10, 2005

the Rakib patent (United States patent 6,307,868 issued to S. S. Rakib et al on October 23, 2001).

Further, the Examiner has also rejected claims 1, 2, 4-6, 8, 9, 11, 12, 14, 15, 17, 18, 20, 21, 23, 24 and 26, as they stood prior to this amendment, as being anticipated under the provisions of 35 USC § 102(e) by the teachings in the Trans patent (United States patent 6,377,640 issued to F. Trans et al on April 23, 2002).

The Examiner has not rejected previously pending dependent claim 3 or any of its counterpart dependent claims 7, 10, 13, 16 and 22. The Applicant has now amended independent claim 1 to incorporate the substantive limitations of claim 3 and has amended each of his remaining independent claims, specifically 5, 8, 11, 14 and 20 to include the recitations of claims 7, 10, 13, 16 and 22, respectively.

Hence, the Applicant submits that all these rejections are now moot and no further comments are necessary. These rejections should now be withdrawn.

#### C. Rejection under 35 USC § 103

The Examiner has rejected claims 2, 6, 9, 12, 15 and 21, as they stood prior to this amendment, under the provisions of 35 USC § 103 as being obvious over of the teachings in the Itri patent as applied to claims 1, 5, 8, 11, 14 and 20 and taken in view of those in the Klemmer patent (United States patent 6,265,902 issued to N. Klemmer et al on July 24, 2001).

The Examiner has also rejected claims 2, 6 and 9, as they stood prior to this amendment, under the provisions of 35 USC § 103 as being obvious over of the teachings in the Rakib patent as applied to claims 1, 5 and 8 and taken in view of those in the Klemmer patent.

Further, the Examiner has rejected claims 18 and 24, as they stood prior to this amendment, under the provisions of 35 USC § 103 as being obvious over of the teachings in the Itri patent taken in view of those in the Klemmer patent and in the Chang patent (United States patent 6,316,966 issued to C. Chang et al on November 13, 2001).

Additionally, the Examiner also rejected claims 18 and 24, as they stood prior to this amendment, under the provisions of 35 USC § 103 as being obvious over of the teachings in the Itri patent taken in view of those in the Klemmer patent and in the Hogge patent (United States patent 4,218,771 issued to C. R. Hogge, Jr. on August 19, 1980).

Here too, the Examiner has not rejected previously pending dependent claim 3 or any of its counterpart dependent claims 7, 10, 13, 16 and 22. As indicated above, the Applicant has now amended independent claim 1 to incorporate the substantive limitations of claim 3 and has amended each of his remaining independent claims, specifically 5, 8, 11, 14 and 20 to include the recitations of claims 7, 10, 13, 16 and 22, respectively.

Hence, the Applicant submits that all these rejections are also now moot and no further comments are

Appl. No. 09/942,820  
Amdt. dated April 15, 2005  
Reply to Office Action of Jan. 10, 2005

necessary. These rejections should now be withdrawn as well.


Conclusion

Thus, the Applicant submits that none of the claims, presently in the application, is anticipated under the provisions of 35 USC § 102 or obvious under the provisions of 35 USC § 103. Furthermore, the Applicant also submit that all of these claims now fully satisfy the requirements of 35 USC § 112.

Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

Respectfully submitted,

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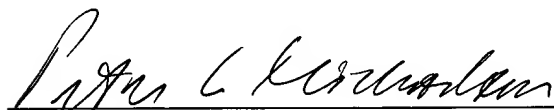


Appl. No. 09/942,820  
Amdt. dated April 15, 2005  
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CERTIFICATE OF MAILING under 37 C.F.R. 1.8(a)

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Appl. No. 09/942,820  
Amdt. dated April 15, 2005  
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In the Drawings:

The attached sheets of drawings include annotated drawing sheets showing changes to FIGs. 1, 6, 8, 9 and 10. Appropriate replacement sheets are also attached at the end of this document.

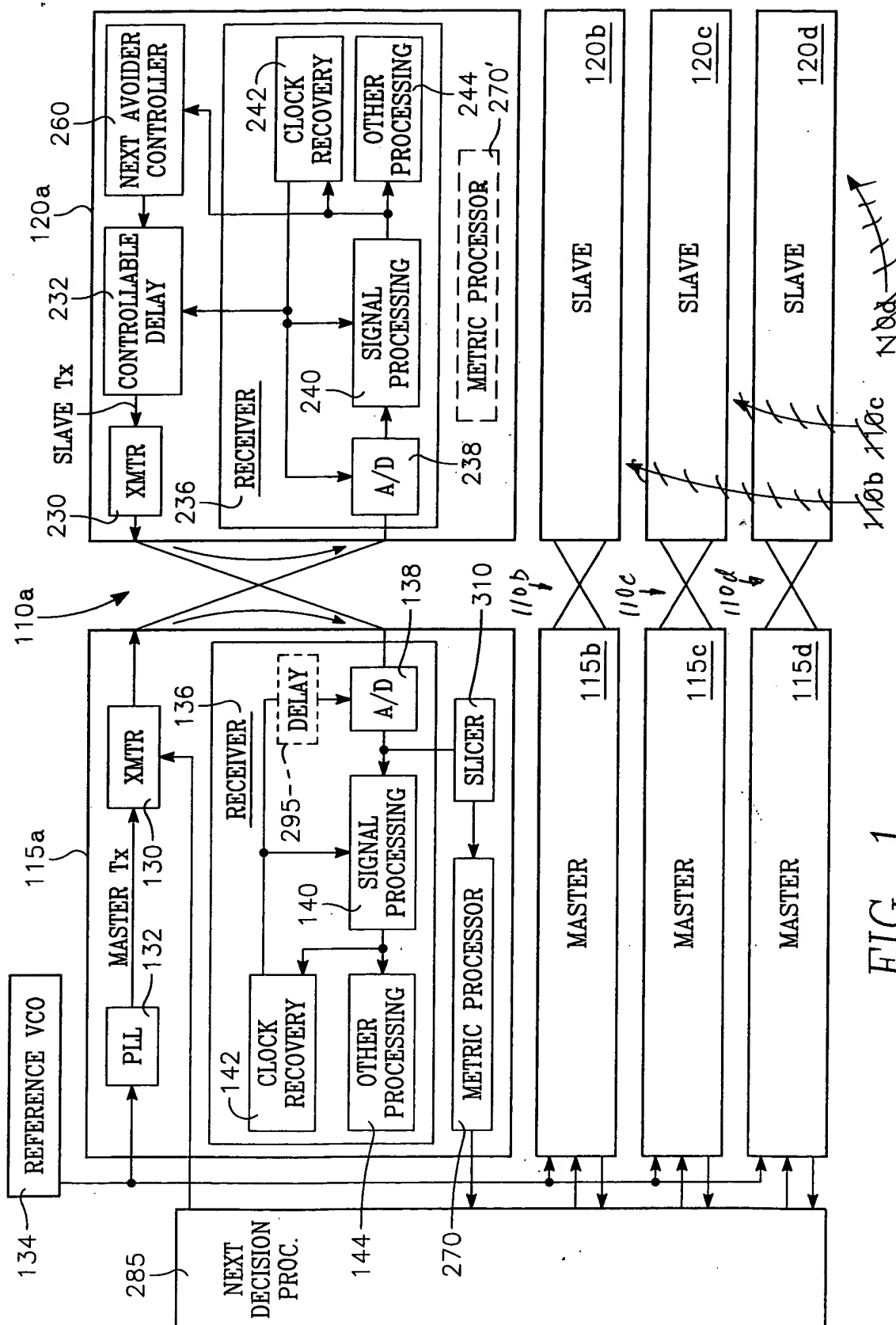


FIG. 1

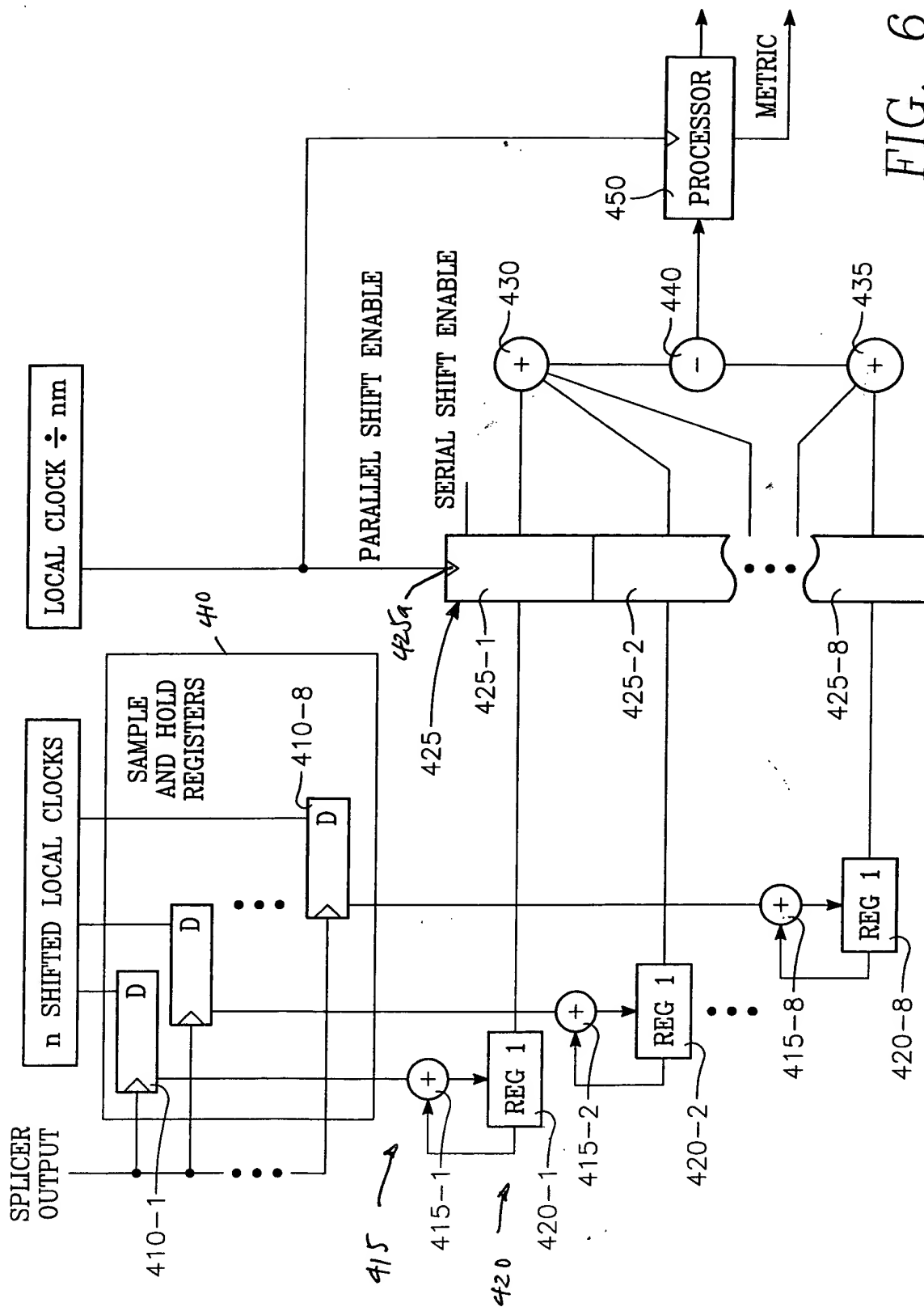


FIG. 6

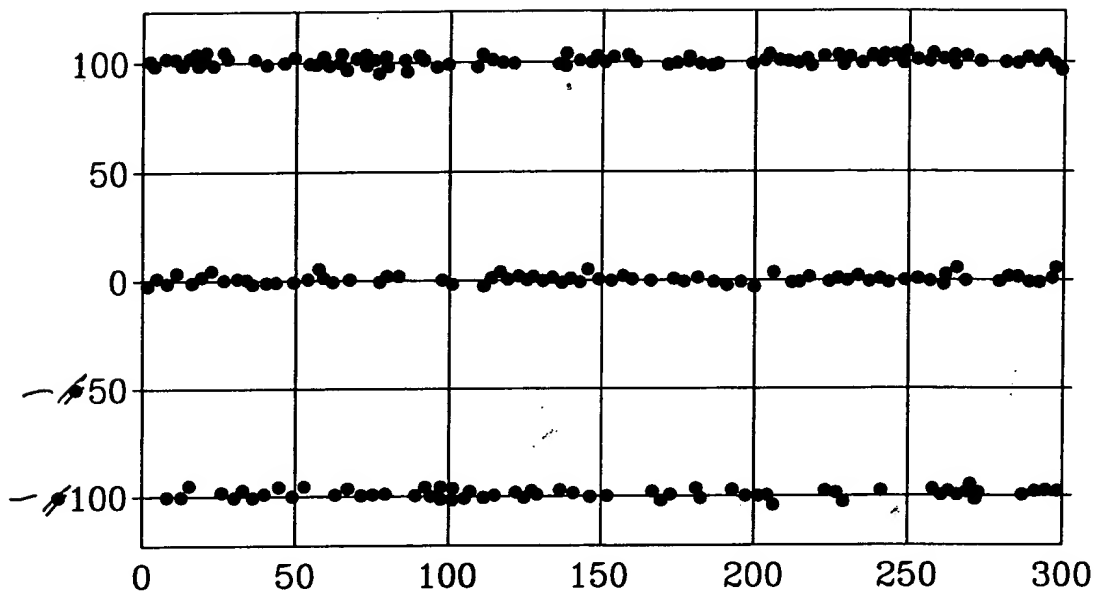


FIG. 8

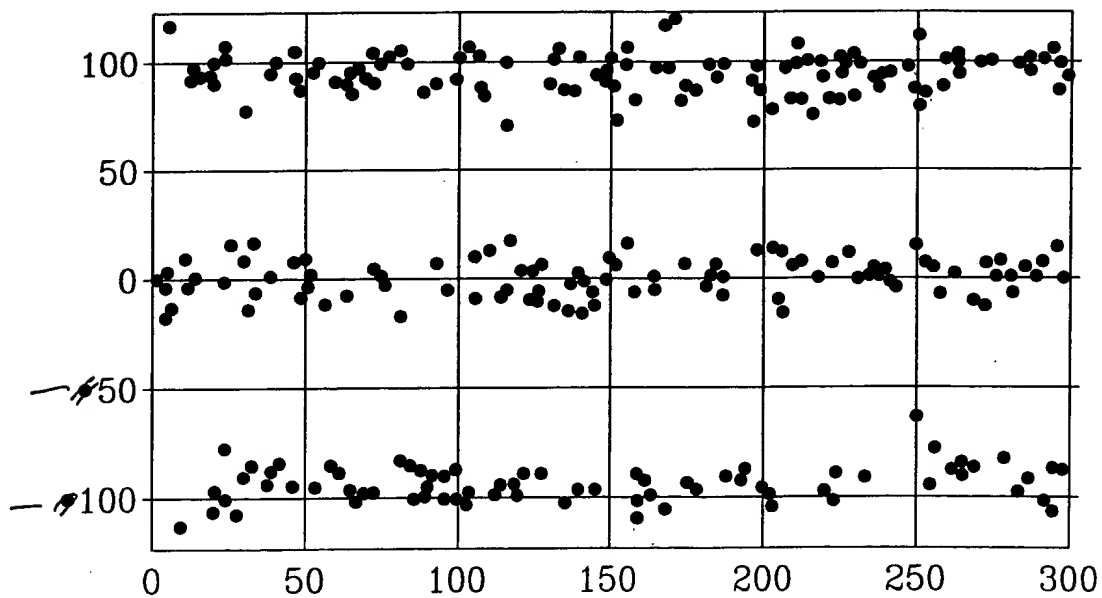


FIG. 9

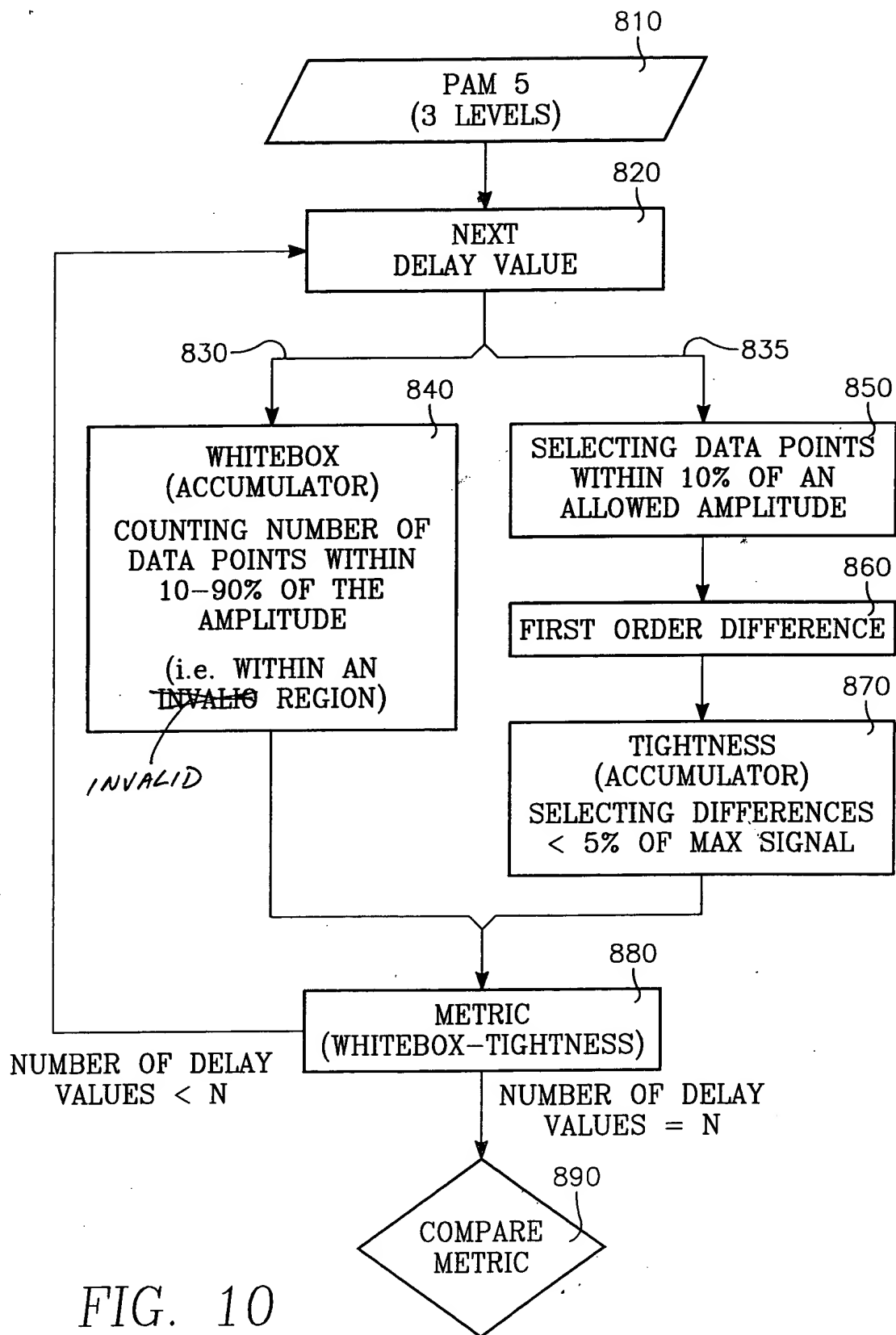


FIG. 10